

Appln No. 09/955,693

Amdt date March 10, 2005

Reply to Office action of December 10, 2004

Amendments to the Drawings:

The attached sheets of drawings include changes to Figures 1, 4A, 5, 6, and 13 of this Application. These sheets, which include Figures 1, 4A, 5, 6, and 13 replace the original sheets including Figures 1, 4A, 5, 6 and 13.

Attachment: Replacement Sheets

Annotated Sheets Showing Changes

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REMARKS/ARGUMENTS

Claims 1-23 will be pending in this application upon entry of the above amendments. Claims 1, 3, and 6-8 are amended. The specification and the figures have been amended. No new matter has been added. In view of the above amendments and remarks that follow, reconsideration, reexamination, and an early indication of allowance of the now pending claims 1-23 are respectfully requested.

Figures 1, 4A, 5, 6, and 13 are objected to for labeling errors. These figures have been amended to address the objections and correct the errors.

The specification was objected to for missing section labels and descriptions of some of the elements on the figures. Amendments to the specification have been made on pages 1, 4, 7, 10, 13, 14, and 22 to address the objections and to conform the specification to the figures.

The foregoing amendments do not add any new matter. Entry of the amendments to the specification and the figures is respectfully requested.

Claims 1, 3, 4, 7-11, and 16-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Hogge (U.S. Patent No. 4,535,459). Claims 2, 5, 12, 14, 15, and 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hogge in view of Savoj (U.S. Patent Pub. No. 2002/0021470 and application number 09/782,687). Claims 6, 22, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hogge in view of Zhang (U.S. Patent No. US 6,614,371). Applicant respectfully traverses these rejections.

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Independent claim 1 is amended to recite the limitation of "providing a second signal by passing the first signal when the clock signal is at the first level, and storing the first signal when the clock signal is at the second level, wherein the second signal is provided by a latch." (Emphasis added). None of the cited references teach or suggest this limitation.

Hogge discloses a prior art design of a phase-locked loop (PLL). Applicant's invention as claimed by the current set of claims, however, provide novel and nonobvious improvements over Hogge's prior art design. Hogge discloses a PLL designed with two flip-flops to keep the clock properly centered in the eye at the decision flip-flop. Hogge puts the same flip-flop that synchronously detects the incoming data as part of the phase detector. The phase detector is in a closed loop which includes a voltage controlled oscillator. The closed loop forces the clock to be positioned at the center of the eye and is inherently self correcting. Hogge fails to teach or even suggest that "the second signal is provided by a latch." (Emphasis added). Instead of a latch, Hogge uses a flip-flop.

Savoj qualifies as prior art only under 35 U.S.C 102(e) because the present application was filed on September 18, 2001, while Savoj was published on February 21, 2002. Furthermore, both the subject matter disclosed in Savoj and the claimed invention were, at the time the claimed invention was made, owned by the same person or subject to an obligation of assignment to the same person. Enclosed is a copy of an assignment and notices of recordation for Savoj and the present application which establish their common ownership. The

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assignment of the Savoj patent is recorded on reel 011696, frame 0668. The assignment of the present application is recorded on reel 012866, frame 0905. Accordingly, Applicant respectfully requests that Savoj be disqualified as prior art under 35 U.S.C. § 103(c).

At any rate, Savoj does not disclose or suggest that "the second signal is provided by a latch." Although, Savoj discloses the use of latches, it is for creating a half-phase detector in a circuit different from that claimed in claim 1. (See, Savoj, figure 5 and page 4, paragraph 42).

Zhang qualifies as prior art only under 35 U.S.C 102(e) because the present application was filed on September 18, 2001, while Zhang was published on January 23, 2003. Furthermore, both the subject matter disclosed in Zhang and the claimed invention were, at the time the claimed invention was made, owned by the same person or subject to an obligation of assignment to the same person. Enclosed is a copy of an assignment and notices of recordation for Zhang and the present application which establish their common ownership. The assignment of the Zhang patent is recorded on reel 0465, frame 012484. The assignment of the present application is recorded on reel 012866, frame 0905. Accordingly, Applicant respectfully requests that Zhang be disqualified as prior art under 35 U.S.C. § 103(c).

Furthermore, Zhang's circuits use two D flip-flops as does Hogge. Latches are discussed in this patent, but in the context of providing building blocks to a C³MOS clocked D-type flip-flop. (See, Zhang, figure 7 and Col. 6, lines 29-30).

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Accordingly, Applicant respectfully submits that none of the references cited, alone or in combination, disclose or suggest the limitation that the "second signal is provided by a latch," as recited in amended claim 1.

Independent claims 7, as amended, and 13 include similar limitations and are both novel and nonobvious over the cited references for reasons similar to those cited for amended claim 1.

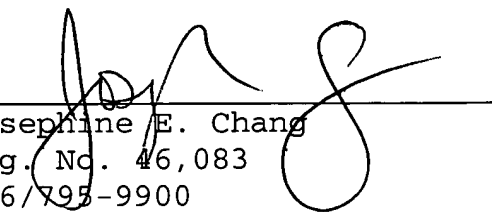
Applicant submits that claims 2-6, 8-12, and 14-23 are also in condition for allowance because they depend on allowable base claims, and for the additional limitations that they contain.

In view of the above amendments and remarks, Applicant respectfully requests reconsideration, reexamination, and an early indication of allowance of the now pending claims 1-23.

Respectfully submitted,

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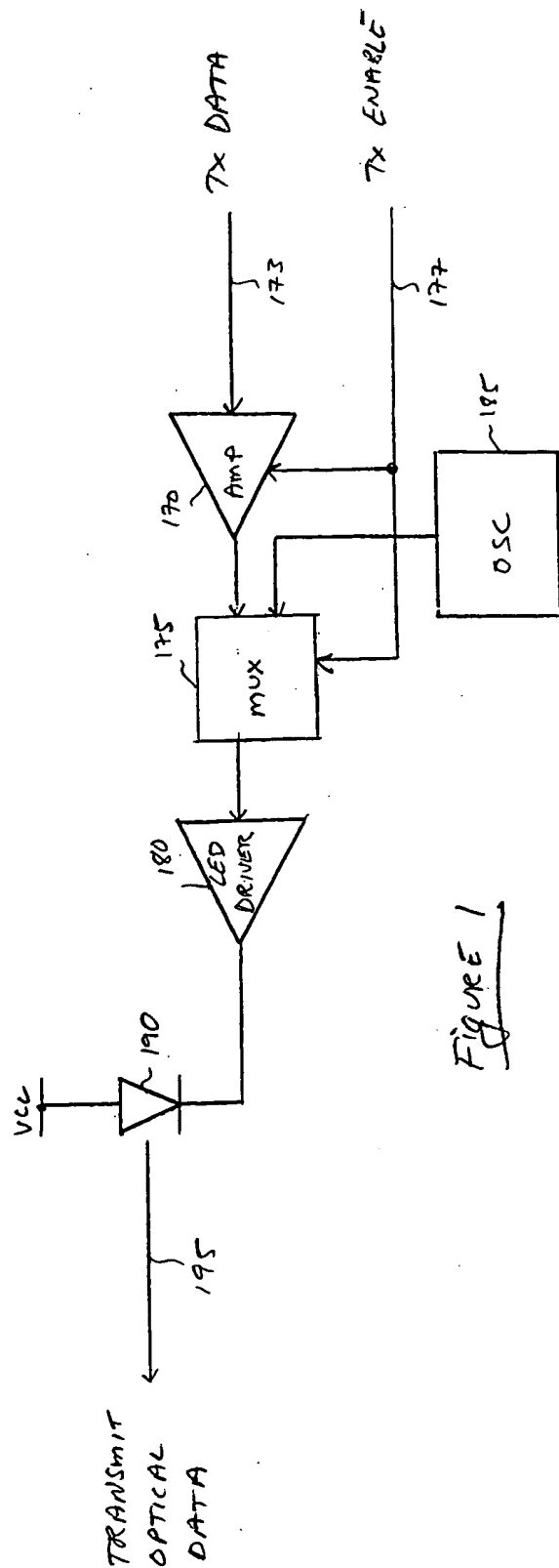
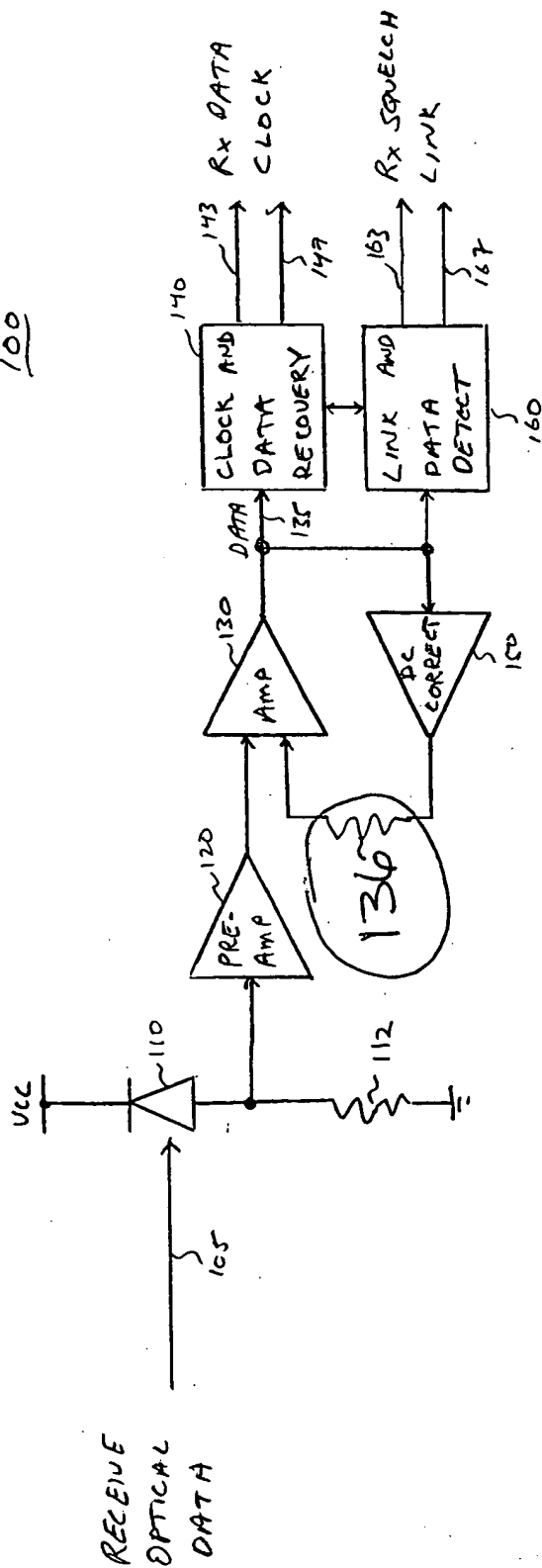


Figure 1

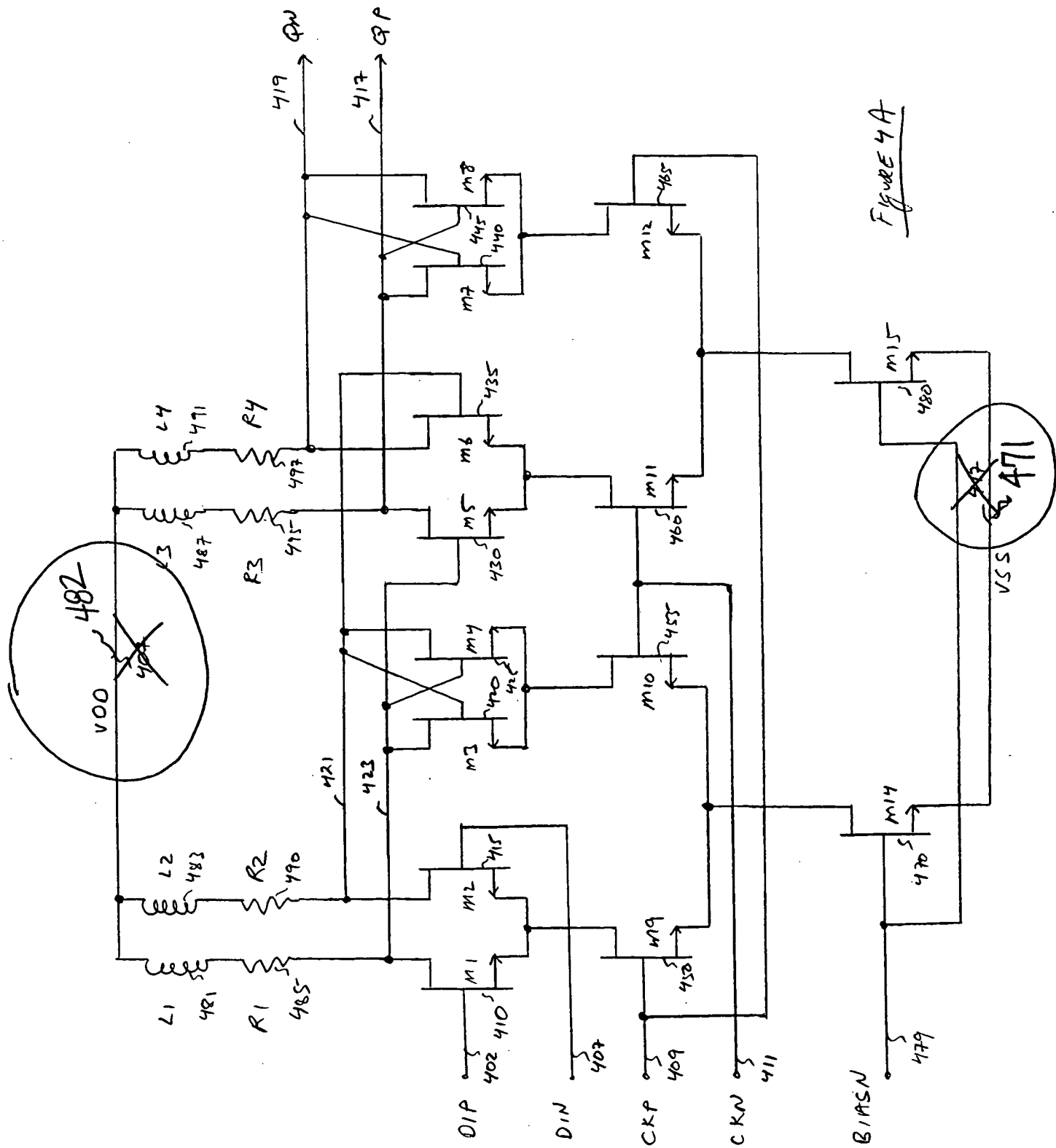


Figure 4A



Figure 5

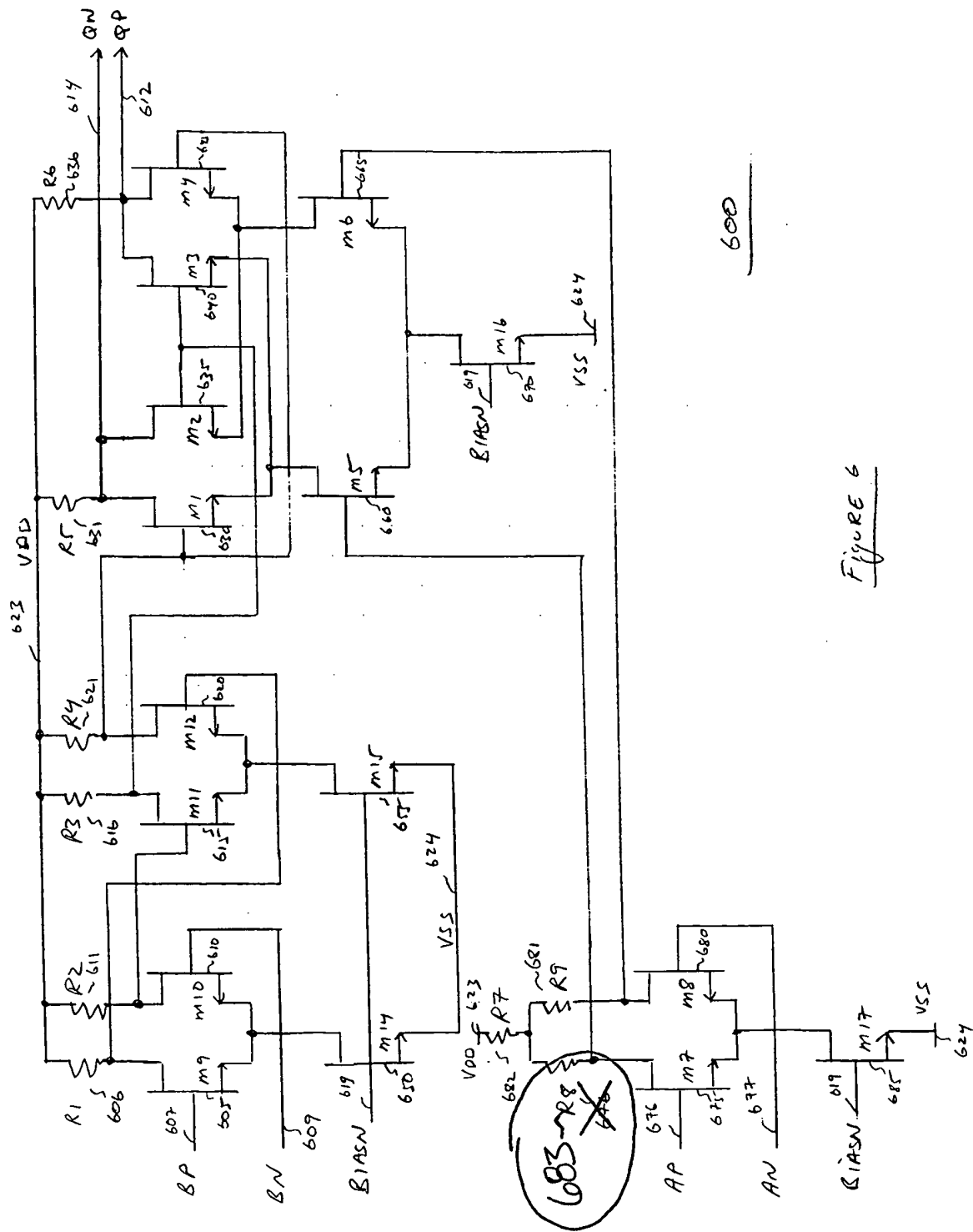


Figure 6

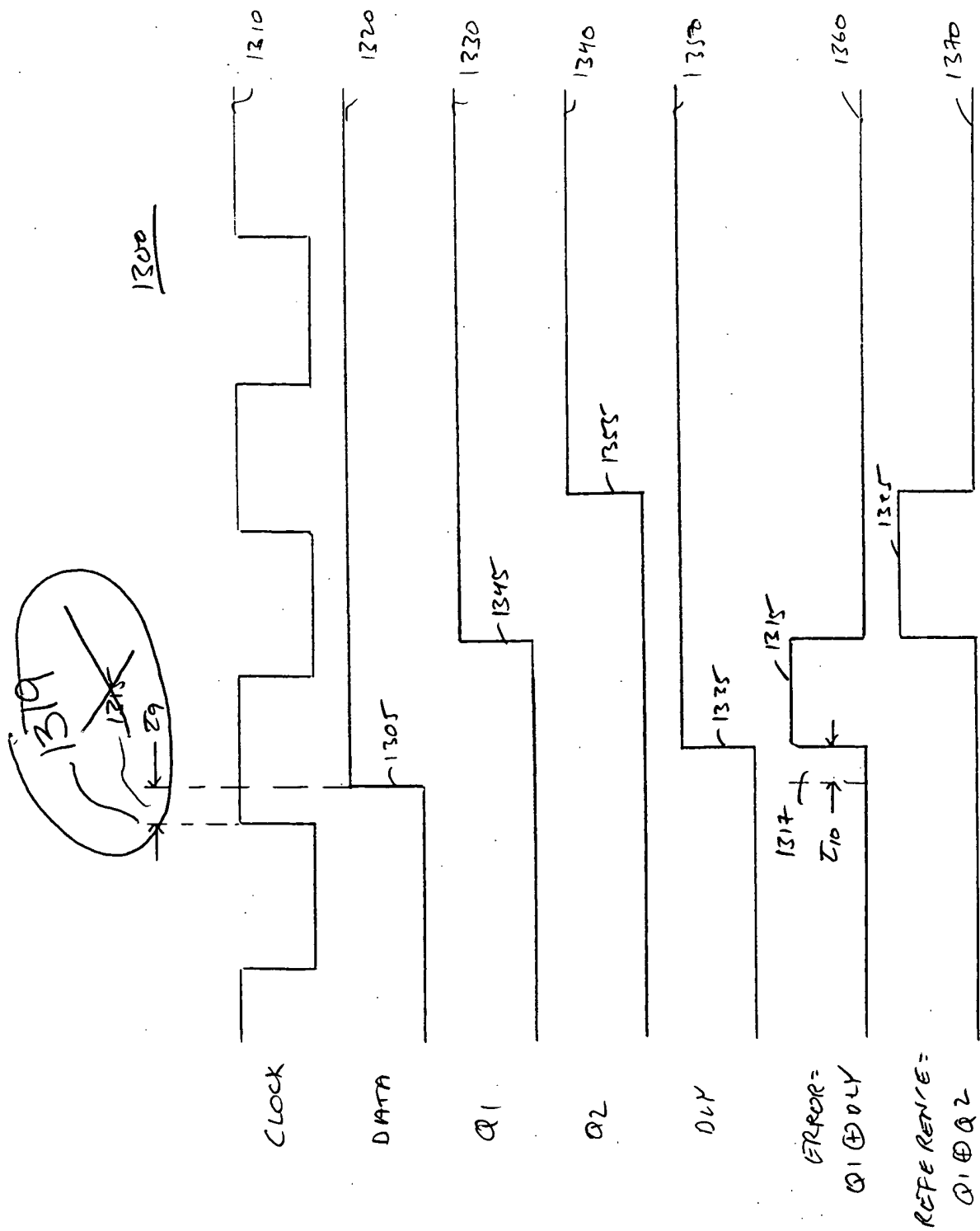


FIGURE 13